Expediting the transfer of evidence into practice: building clinical partnerships*

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A librarian/clinician partnership was fostered in one hospital through the formation of the Evidence-based Practice Committee, with an ulterior goal of facilitating the transfer of evidence into practice. The paper will describe barriers to evidence-based practice and outline the committee's strategies for overcoming these barriers, including the development and promotion of a Web-based guide to evidence-based practice specifically designed for clinicians (health professionals). Educational strategies for use of the Web-based guide will also be addressed. Advantages of this partnership are that the skills of librarians in meeting the needs of clinicians are maximized. The evidence-based practice skills of clinicians are honed and librarians make a valuable contribution to the knowledgebase of the clinical staff. The knowledge acquired through the partnership by both clinicians and librarians will increase the sophistication of the dialogue between the two groups and in turn will expedite the transfer of evidence into practice.

SIGNIFICANCE

Interest in evidence-based practice among clinicians has prompted librarians to examine their roles in all aspects of the process. Evidence-based practice is the conscientious, explicit, and judicious use of current best evidence in making decisions about the health care of individuals and groups [1]. The process of evidence-based practice involves creating a structured question from a clinical problem, searching the literature for answers to the question, appraising the literature found [2], and applying any changes to practice [3]. In this process, there are several areas where the expertise of librarians, in direct partnership with clinicians, can expedite the transfer of evidence into practice [4–6].

This paper shows how a librarian/clinician partnership has been fostered in one hospital through the for-

Table 1
Clinical partnerships to reduce barriers to evidence-based practice (EBP)

Clinician barriers to EBP	Librarian role	Clinician role
Lack of awareness about the process of evidence-based practice	■ Can provide background information on the process	■ Can build interest in the clinical area and disseminate information found by the librarian to a wide area
Lack of computer skills	■ Can locate relevant courses or act as a resource person to answer simple questions	■ Can recognize the importance of computer skills for clinicians and make time available to improve skills
Lack of online searching skills	■ Can perform online searches or provide end-user training	■ Can formulate questions and either ask for an online search to be completed or learn to perform the search
	■ Can provide instructions on searching sources of evidence-based material	■ Can contribute to writing clear instructions for use of an EBP resource from a clinician's perspective
Lack of knowledge about the sources of research evidence	■ Can organize EBP sources in a useful and accessible manner	■ Can contribute feedback on the organization of information and descriptions
	■ Can provide descriptions and examples of the use of the various sources	

mation of the Evidence-based Practice Committee, with an ulterior goal of facilitating the transfer of evidence into practice. The paper describes barriers to evidence-based practice and outlines the committee's strategies for overcoming these barriers, including the development and promotion of a Web-based guide to evidence-based practice, specifically designed for clinicians (health professionals). Educational strategies for use of the Web-based guide are also addressed. Finally, the paper discusses the implications of this project to improving information delivery to clinicians and supporting evidence-based practice.

BACKGROUND

In a large Montreal teaching hospital, the process of building a partnership with clinicians to expedite the transfer of information from research to practice began with the formation of the Evidence-based Practice Committee in May 1998. Evidence-based practice became a priority for the Nursing Department earlier that year, and a mandate to address the issue was given to the Centre for Nursing Research under the guidance of the scientific director. The committee was formed to support research utilization in clinical practice and to develop ways of promoting evidence-based practice in all areas of the hospital. The committee was made up of bilingual (French and English) nurse experts (nurses who acted as educators or clinical specialists in the hospital) representing all clinical areas, nurse researchers, and a librarian. The purpose of this committee was to promote the notion of basing clinical practice on evidence and subsequently promote the actual transfer of research results to clinical practice once the notion has taken hold.

Locating and appraising health information and assessing its applicability to current practice is a valuable but time-consuming activity. Librarians may be involved in training clinicians in evidence-based practice–searching techniques [7], but the case has been made that librarians should be responsible for wholly performing most of the literature searches needed for busy clinicians who wish to use evidence to make clinical decisions [8]. All seem to agree that librarians are an integral part of the evidence gathering and appraising process, whether this part means performing a search [9] or providing end-user training [10]. End-user training may also include instructions on other aspects of the evidence-based practice process including formulating the clinical questions [11], providing support for critical appraisal of research studies [12, 13] and practice guidelines [14], or training in techniques to filter high-quality studies such as randomized controlled trials from MEDLINE [15]. The role may also involve using the Internet and Web technologies to manage information that would be useful to clinicians [16].

To be effective in providing clinical support, librarians must identify ways to bring relevant information to clinicians in a timely and organized fashion. The information must supplement the knowledge of the clinician and answer not only the clinical question at hand but answer any questions about the process of changing clinical practice based on the answer to the clinical question. Ongoing partnerships between clinicians and librarians can improve communication, enabling librarians to better answer clinical questions [17–19]. After several meetings of the Evidence-based Practice Committee, the clinicians confirmed some known barriers to evidence-based practice [20–22]. These barriers included a lack of awareness about the process of evidence-based practice, a lack of computer skills, a lack of online searching skills, and a lack of knowledge about the sources of research evidence. The important roles librarians and clinicians play in diminishing these barriers can be seen in Table 1.

CLINICAL PARTNERSHIPS TO DEVELOP A TOOL TO ACCESS EVIDENCE-BASED RESOURCES

When the committee examined the barriers to evidence-based practice, it realized that a guide needed

Table 2
Inclusion criteria for review of evidence-based resources

Authority	■ Originates from a library, university, hospital, or government agency
	■ Originates from an organization or association of health professionals
Content	■ Contains evidence-based material
	■ Contains practice guidelines based on evidence
Audience	■ Intended for health care professionals
Format	■ Is a searchable database
	■ Provides a useful index either alphabetically or by subject area

Table 3
Promotion and education of the Guide to Evidence-based Practice

Presentations	■ Formal presentations
	■ Coaching sessions
	■ Workshops
Notices	■ Flyers
	■ Posters
	■ Email signatures
	■ Paycheque message
Articles	■ Inhouse publications
	■ External publications
Press releases	■ Traditional press releases
Personal communication	■ E-press releases
	■ Letters
	■ Telephone calls
	■ Memos
	■ Email
Electronic form	■ Website contribution
	■ Search engine submission form

to be developed to centralize the access to information that was essential for decision making. The guide that evolved from the initial committee meetings was in paper form but quickly became unwieldy. An electronic guide was suggested, although several Websites with this purpose had already been developed elsewhere. A review of these existing Websites showed that several features important to clinicians were absent: (1) some indication of the quality of the information contained in the resource, (2) the usefulness of the site to clinicians, (3) clear descriptions and instructions for use of the resource contained therein, and (4) descriptions and instructions in French. The committee therefore developed a comprehensive Website called the Guide to Evidence-based Practice§ that uses the strengths and expertise of both the librarian and the clinicians to address those elements necessary for effective use of the resource by clinicians.

To give some indication of the quality of information that is accessible from the Guide to Evidence-based Practice Website, the librarian has developed inclusion criteria with which clinicians can review potential links to sources containing evidence-based material. The committee applies inclusion-criteria to Websites of potential interest, which focus on four areas: *authority, content, audience,* and *format.* These are detailed in Table 2. Potential evidence-based sources from the Web are identified by the librarian using a detailed search strategy and various search engines. Once the librarian identifies possible sites, they are transferred to a database for further review by clinicians. Clinicians are included in the review process to fulfill the need of item number two above, that the site is useful to clinicians and not simply to patients and their families.

In order to provide the third feature, that the site has clear instructions and descriptions, the clinicians have collaborated with the librarian in writing detailed instructions for searching each resource. The instructions are written from the clinicians' perspectives with a minimum of library terms.

The entire guide is translated into French to enhance

its use by French-speaking clinicians, the fourth element the clinicians think is important for maximum transfer of research evidence into practice. Although most resources are in English, having French instructions for searching and descriptions of the resources is helpful and time efficient for French-speaking clinicians.

CLINICAL PARTNERSHIPS TO ENHANCE THE USE OF THE GUIDE TO EVIDENCE-BASED PRACTICE

The collaboration of the librarian and the clinicians encompasses more than the creation and ongoing development of the guide. The next step to expedite the transfer of evidence into practice is dissemination of the guide. This dissemination involves promoting the Web guide as a tool for clinicians to answer clinical questions in a variety of ways, which are listed in Table 3.

Promotional activities are carried out by the clinician or the librarian independently or by the two jointly, depending on the situation. For example, individual coaching sessions may be led by the appropriate clinician, depending on the clinical area of the information seeker, or the librarian, depending on the need for searching expertise across clinical areas. The sessions are tailored to the individual clinician's question, with help in formulating the clinical question from a clinician or literature-searching support from the librarian. This customized learning arrangement increases the clinicians' computer and searching skills and leads to more relevant interaction with the librarian.

The online promotion of the guide using electronic forms includes registering the uniform resource locator (URL) with Web-search engines and indexing services. It also entails contacting linked sites, notifying Website developers, and suggesting that back links be made from sites to the guide. The librarian member of

§ The Guide to Evidence-based Practice may be viewed at http://www.nursingresearch.jgh.mcgill.ca.

the committee must be knowledgeable about other Web guides to evidence-based practice.

DISCUSSION

The education and support provided by the committee to the users of the Guide to Evidence-based Practice should not be underestimated. The training of end users in searching is a role that many librarians in teaching hospitals have adopted. Rather than diminish the role of librarians as searchers, as some suggest, providing clinicians with basic searching skills and assisting in difficult searches improves the ability of the clinician to work collaboratively with librarians. Together, they achieve even greater clinical effectiveness as the two sides begin to communicate in more detail about clinical problems.

Hospital librarians can work collaboratively with all members of clinical areas by using the Internet and the Web to manage information for clinicians. Centralizing access to evidence-based information in a way that is useful to clinicians helps to diminish the barriers to evidence-based practice. Although the review of resources has traditionally been a function of librarians, sharing the task with clinicians is productive for both partners. Clinicians acquire a clearer view of the available resources and the capabilities of these resources, and librarians get greater insight into the needs of clinicians.

The advantages for librarians in this partnership include a greater understanding of clinical questions and resources that can answer those questions. The collaboration may illuminate the need for better library tools that would be useful to clinicians. Further, this type of partnership places the librarian in a position of greater visibility in the hospital. Librarian skills such as online searching and information management are showcased. The demand for librarians and their skills could increase as clinical partnerships are formed throughout the hospital.

Only by working closely with clinicians can librarians truly identify clinicians' ongoing information needs. In the process, the evidence-based practice skills of clinicians are honed and librarians make valuable contributions to the knowledgebase of the clinical staff. This knowledge acquired by both clinicians and librarians will increase the sophistication of the dialogue between the two groups and in turn will expedite the transfer of evidence into practice.

REFERENCES

1. SACKETT DL, ROSENBERG WM, GRAY JA, HAYNES RB, RICHARDSON WS. Evidence based medicine: what it is and what it isn't. [Editorial]. BMJ 1996 Jan 13;312(7023):71–2.

2. NORMAN GR, SHANNON SI. Effectiveness of instruction in critical appraisal (evidence-based medicine) skills: a critical appraisal. CMAJ 1998 Jan 23;158(2):177–81.

3. STRAUS SE, SACKETT DL. Using research findings in clinical practice. [Review]. [16 refs]. BMJ 1998 Aug 1;317(7154):339–42.

4. SCHERRER CS, DORSCH JL. The evolving role of the librarian in evidence-based medicine. Bull Med Lib Assoc 1999 Jul;87(3):322–8.

5. MCKIBBON KA, WALKER-DILKS C. The need for evidence. Bibl Medica Canadiana 1999 Spring;20(3):124–5.

6. FULLER SS, KETCHELL DS, TARCZY-HORNOCH P, MASUDA D. Integrating knowledge resources at the point of care: opportunities for librarians. Bull Med Lib Assoc 1999 Oct;87(4):393–403.

7. BUCKINGHAM J. Evidence-based medicine quality filters in MEDLINE records: theory practice and practical reality. Bibl Medica Canadiana 1998 Fall;20(1):7–9.

8. HOLTUM EA. Librarians, clinicians, evidence-based medicine, and the division of labor. Bull Med Lib Assoc 1999 Oct;87(4):404–7.

9. IBID.

10. ASH JS. Factors affecting the diffusion of online end user literature searching. Bull Med Lib Assoc 1999 Jan;87(1):58–66.

11. GREENHALGH T. Is my practice evidence-based? BMJ 1996 Oct 19;313(7063):957–8.

12. NORMAN, op. cit.

13. GREENHALGH T. Assessing the methodological quality of published papers. BMJ 1997 Aug 2;315(7103):305–8.

14. BERG AO, ATKINS D, TIERNEY W. Clinical practice guidelines in practice and education. J Gen Intern Med 1997 April;12(Suppl 2):S25–S33.

15. BUCKINGHAM, op. cit.

16. FRASER HS, KOHANE IS, LONG WJ. Using the technology of the World Wide Web to manage clinical information. BMJ 1997 May 31;314(7094):1600–3.

17. SCHERRER, op. cit.

18. MCKIBBON, op. cit.

19. OXMAN AD, SACKETT DL, GUYATT GH. Users' guides to the medical literature. I. how to get started. The Evidence-Based Medicine Working Group. JAMA 1993 Nov 3;270(17):2093–5.

20. HAYNES B, HAINES A. Barriers and bridges to evidence based clinical practice. BMJ 1998 Jul 25;317(7153):273–6.

21. BERO LA, GRILLI R, GRIMSHAW JM, HARVEY E, OXMAN AD, THOMSON MA. Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. The Cochrane Effective Practice and Organization of Care Review Group. BMJ 1998 Aug 15;317(7156):465–8.

22. VEERAMAH V. A study to identify the attitudes and needs of qualified staff concerning the use of research findings in clinical practice within mental health care settings. J Adv Nurs 1995 Nov;22(5):855–61.